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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,723	07/25/2003	Masaki Nakano	03500.016907	2367

5514 7590 04/19/2005

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EXAMINER

WOODS, ERIC V

ART UNIT PAPER NUMBER

2672

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,723

Applicant(s)

NAKANO ET AL.

Examiner

Eric V Woods

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-24 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20031001</u> . | 6) <input type="checkbox"/> Other: _____ |

\DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 1-12, drawn to image superposition and positioning, classified in class 345, subclass 672.
- II. Claim 13-24, drawn to image compositing and blurring, classified in class 345, subclass 629.

2. Inventions Group I and Group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group I has separate utility such as translating images and utilizing superposition to form final images based on their position. See MPEP § 806.05(d).

3. Invention Group II has separate utility for blurring image boundaries when two separate images or an image and a mask are being composited.

4. As such, these inventions both have separate utility. According to the specification, it may be possible that these inventions are used together, but on page 4 of the specification it states that both are separate objects of the present invention.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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6. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

8. Examiner spoke with applicant's representative Scott D. Malpede (32,533) on 30 March 2005 at 3 p.m. EST to inform him of a restriction requirement for this case.

9. During a telephone conversation with Scott D. Malpede (32,533) on Friday, April 1, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-24 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

10. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

11. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

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The following title is suggested: System for Image Superposition and Compositing Blur.

12. The abstract of the disclosure is objected to because the abstract does not mention anything about image compositing per se. Correction is required. See MPEP § 608.01(b).

13. The disclosure is objected to because of the following informalities:

A. The term 'OSD' is used on page 3, line 1 of the specification without an explanation of the acronym. Applicant is required to insert the actual meaning of the acronym such that the line reads "On-Screen Display (OSD)" so that a reader would be aware of the meaning of the acronym.

Appropriate correction is required.

Drawings

Examiner accepts the drawings.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al (US PGPub 2002/0073424 A1)('Ward') in view of Abe (JP 07-199889, as provided on applicant's IDS). Claim 9 is merely a method

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implementing apparatus of claim 1; rejections valid on one are equally valid on the other.

As to claim 1,

An image processing apparatus, comprising:

- Input means for inputting first image data and second image data; (Ward teaches in Fig. 1 the use of a display device in [0028] that could be a television or PC monitor, wherein it takes in video from cable television or the like [0029], and in Fig. 1 in the upper left hand corner there is a PIP (picture-in-picture) window 12 clearly labeled as showing video, and the other windows show other content and/or image data)

- Determining means for determining a display position of the second image; and (The embodiment shown in Fig. 1 has fixed window position and size [0028], but other embodiments within Ward have user-adjustable window position, size, and content, see [0028-0029] and particularly [0168], where it is taught that the user can manipulate the various windows, especially the PIP window, as far as size and position, and that it can show multiple video streams simultaneously. The remote control shown in Fig. 2 can be used to position the various windows)

- Display control means for superimposing one of the first image and the second image on the other and displaying the first and second images on a monitor such that the second image is positioned in the display position determined by the determining means, (Other embodiments within Ward have user-adjustable window position, size, and content, see [0028-0029] and particularly [0168], where it is taught that the user can manipulate the various windows, especially

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the PIP window, as far as size and position, and that it can show multiple video streams simultaneously. The remote control shown in Fig. 2 can be used to position the various windows)

-Wherein the determining means determines a display position of the second image such that the display position is changed within a range that is apart from the display position determined last time by a predetermined number of pixels. (Other embodiments within Ward have user-adjustable window position, size, and content, see [0028-0029] and particularly [0168], where it is taught that the user can manipulate the various windows, especially the PIP window, as far as size and position, and that it can show multiple video streams simultaneously. The remote control shown in Fig. 2 can be used to position the various windows as set forth in [0168], where the number of pixels for movement would be determined based on the user's selection.)

Abe clearly teaches in the abstract that the window is moved and sized dynamically based on random numbers, etc., as further illustrated in paragraphs [0008-0015] in the specification / detailed description where the first and second windows can each contain various images or similar and move around all over the screen, which is the teaching of the this claim, basically that a second window is moved around a first window based on a determining means, as recited in the specification that would contain a random number or similar.

While reference Ward teaches all of the limitations as set forth above, since the claim recites 'means' the Abe reference is incorporated because it performs essentially the same tasks, but under automatic program control rather

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than the user performing such a task, and obviously the techniques that allow the system of Abe to automatically resize and reposition windows could be used with the system of Ward such that the windows (e.g. main guide window and the PIP window) are resized, repositioned, etc. automatically until the user sees a combination that is ideal for their tastes and preferences. Obviously, resizing the window would be an obvious variation, and the motivation for combination comes from the fact that an automatic method of performing a manual task is more efficient and more likely to quickly generate the desired results for the user than manually incrementing each window, which is obviously a tedious process.

16. Claims 1-5, 7, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dimitrova et al (US 6,697,124 B2) ('Dimitrova') in view of Abe. Claim 9 is merely a method implementing apparatus of claim 1; rejections valid on one are equally valid on the other.

17. As to claims 1 and 9,

An image processing apparatus, comprising:

- Input means for inputting first image data and second image data; (Dimitrova 1:5-37 teaches PIP (picture-in-picture) technology where a first and second video image are displayed on the same screen, which prima facie includes input means)

- Determining means for determining a display position of the second image; and (Dimitrova teaches that the PIP picture can be positioned and sized by the user and that this is well known in the art (1:5-37, emphasis on 1:32-37), and further that Dimitrova teaches automatic means for doing so – see the flowchart in Fig.

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4, wherein Dimitrova teaches that the PIP moves around to regions of the video image with the least change so that it stays out of the way, and that the size and position of the PIP window are automatically adjusted – see for example steps 116, 128, and 130)

-Display control means for superimposing one of the first image and the second image on the other and displaying the first and second images on a monitor such that the second image is positioned in the display position determined by the determining means,

(Dimitrova teaches that the PIP picture can be positioned and sized by the user and that this is well known in the art (1:5-37, emphasis on 1:32-37), and further that Dimitrova teaches automatic means for doing so – see the flowchart in Fig. 4, wherein Dimitrova teaches that the PIP moves around to regions of the video image with the least change so that it stays out of the way, and that the size and position of the PIP window are automatically adjusted – see for example steps 116, 128, and 130)

-Wherein the determining means determines a display position of the second image such that the display position is changed within a range that is apart from the display position determined last time by a predetermined number of pixels.

(Dimitrova teaches that the PIP picture can be positioned and sized by the user and that this is well known in the art (1:5-37, emphasis on 1:32-37), and further that Dimitrova teaches automatic means for doing so – see the flowchart in Fig. 4, wherein Dimitrova teaches that the PIP moves around to regions of the video image with the least change so that it stays out of the way, and that the size and

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position of the PIP window are automatically adjusted – see for example steps 116, 128, and 130)

Abe clearly teaches in the abstract that the window is moved and sized dynamically based on random numbers, etc., as further illustrated in paragraphs [0008-0015] in the specification / detailed description where the first and second windows can each contain various images or similar and move around all over the screen, which is the teaching of the this claim, basically that a second window is moved around a first window based on a determining means, as recited in the specification that would contain a random number or similar.

The two references are obviously directed to the same problem solving area, that of positioning a window on a monitor with a second window and also are analogous art, as they both move a window automatically based on how the computer program instructs them to do, based on (in the case of Dimitrova) characteristics of the video (e.g. motion, texture, etc.) or random numbers (Abe).

While reference Dimitrova teaches all of the limitations as set forth above, since the claim recites 'means' the Abe reference is incorporated because it performs essentially the same tasks, but under automatic program control rather than the user performing such a task, and obviously the techniques that allow the system of Abe to automatically resize and reposition windows could be used with the system of Ward such that the windows (e.g. main guide window and the PIP window) are resized, repositioned, etc. automatically until the user sees a combination that is ideal for their tastes and preferences. Obviously, resizing the window would be an obvious variation, and the motivation for combination comes

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from the fact that an automatic method of performing a manual task is more efficient and more likely to quickly generate the desired results for the user than manually incrementing each window, which is obviously a tedious process, and the system of Abe would be ideal for situations where only part of the video was moving, e.g. two persons sitting at dinner table and the window could be randomly positioned in one of many areas of low activity around the edge of the screen as Dimitrova does (1:40-2:6).

18. As to claims 2 and 10, the Dimitrova reference is 1:5-37 emphasizes that the PIP signal can be turned off (1:5-15), which would constitute “instruction means” for turning on or displaying the second image; Abe clearly performs this task in [0018] where it states that after a certain amount of time, if it does not get an input, it then in [0019] generates the first window and then the second window and moves it around [0019-0020] as per computer program [0030-0031], which clearly qualifies as instruction means. The initial position of the object (if it is an animation, etc.) is set by the computer program [0008], [0019-0021], and [0029-0031], which then causes the determining means to display the second window only when the conditions (e.g. a fixed time with no user input exceeded) has occurred or when the user instructs the TV to turn on the PIP image. Motivation and combination is taken from the parent claim.

19. As to claims 3 and 11, as shown in Fig. 4 Dimitrova repositions the image [1:40-2:10] in areas of low activity or change on the main screen, which is “arbitrary” and Abe changes the location as based on a random number (see

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"Constitution" section of the Abstract for example). Motivation and combination is taken from the parent claim.

20. As to claims 4 and 12, Dimitrova does expressly teach this limitation.

Reference Abe teaches in the Abstract that the image is moved around based on random numbers, where in [0008-0009] it is stated that the conventional screen saver would be confined to one region of the screen and still would cause burn-in ("seizure of screen" is the terminology the Japanese translation uses) of the CRT, thusly in [0013-0015] it is stated that the second image (e.g. the moving one as shown in Fig. 1) moves all over the screen and never stays beyond a fixed time to prevent burn-in. Obviously, this is the case where a minimum time is not exceeded. Given that the stated goal of Abe is to avoid the problem of excessive residence time of the screen saver image on any portion of the screen so as to avoid burn-in, obviously the system of Abe will keep the image in any one part of the screen a minimum amount of required time. Reference Dimitrova does state that the PIP region is moved around the screen based on activity, e.g. it is moved to areas of the screen that show the least amount of change so as to avoid obscuring important regions in the main window. Obviously, this technique could utilized by Abe so that the system would move the window randomly to areas of the screen with little or no change (in an all-black window (Abe [0014-0015]) that would be most of the screen such that it would stay a minimum of time in any one part of the screen and would not exceed residence times anywhere on the screen). Motivation and combination are taken form the parent claim.

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21. As to claim 5, obviously the Dimitrova reference generates a second image (e.g. the PIP video window) and displays it. However, it is unknown whether this is the intention of applicant. As such, the Abe reference clearly can generate arbitrary images or animations, for example the fish cited in [0008] and shown in Drawings 3 and 7, see elements 42 and 61 in Drawing 3 specifically. Obviously, in either or both cases, there is an "image generation means" that generates and displays the fish animation, such that it moves around the screen and is so moved by the determining means. Obviously, such windows are superimposed as in Drawings 3 and 7 of Abe where one window moves around inside of another, and the Dimitrova reference moves the smaller PIP video window around inside the main video image as recited. Motivation and combination are taken from the parent claim.

22. As to claim 7, clearly Abe teaches that the second image that is moved around the screen is resized randomly (see Drawings 1-2); obviously this encompasses "image size conversion means". Further, the system of Dimitrova is known to resize the PIP window as discussed at length above (see Fig. 4, steps 116 and 130) and it is known to let the user resize it as well 1:5-35. Motivation and combination is taken from the parent claim.

23. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dimitrova in view of Abe as applied to claim 5 above, and further in view of Ward.

24. As to claim 6, the Dimitrova and Abe references do not expressly teach this limitation, while Abe teaches the generation of arbitrary animations and

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screen savers, which could obviously be icons. The Ward reference specifically (see Fig. 1) teaches the use of icons, menus, and other such items in various windows in [0030, 0171-0173] that can be made transparent and/or translucent to the degree desired by the user, and teaches multiple windows (see the first rejection under 103(a) above for details on this particular point). Obviously, it would have been obvious to display the content of Ward in the PIP windows of Dimitrova or the second window / screen saver of Abe, given that Dimitrova also teaches transparency (3:13-35) and Fig. 3 where the PIP transparency adjuster 62 is shown and in Figure 4 where the step of adjusting PIP transparency 110 is shown).

25. As to claim 8, the Abe and Dimitrova references do not expressly teach this limitation, while the Ward reference does. The rejection to claim 6 above is herein incorporated by reference in its entirety including combination and motivation. As taught there, multiple windows can be repositioned and resized by the user. Obviously, any of those could be the recited "first window" and "second window" and obviously Abe and Dimitrova teach the moving and resizing of a PIP window, and the Ward reference teaches such a PIP as well as other windows for advertising, TV Guides, etc. Motivation and combination is taken from claim 6.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric V Woods whose telephone number is

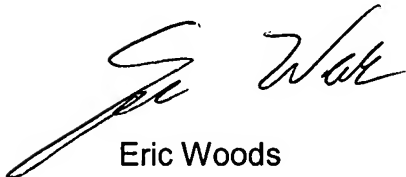
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571-272-7775. The examiner can normally be reached on M-F 7:30-5:00


alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric Woods



JEFFERY D. BRIER
PRIMARY EXAMINER

April 6, 2005